

SECTION II

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ASSESSMENTS

Assessments are seldom simply the assessor's estimate of property value. In most states, assessments are set at some uniform fractions of appraised value (fractional assessments). In such states, the act of setting assessments is therefore a straightforward factoring of appraised values. In a growing number of states, classified property tax systems have been adopted, wherein different classes of property, e.g., residential or agricultural, are assessed at different levels of value. In such states, it is necessary to determine the class of a property before the assessment can be determined.

At the same time, some properties or some property owners may be eligible for differential assessment, such as agricultural use value assessment or partial exemptions. Others may be eligible for total exemption. Here it is necessary to keep records of exemption applications and to monitor exempt properties to insure that they continue to be eligible for exemption.

The review and appeal of assessment is the final stage of the assessment process. The assessor's precise responsibilities at this stage are mandated by law. The assessor must, however, attend to such matter as (1) advertising appeal rights and procedures, (2) mailing assessment notices, (3) providing facilities and staff to explain assessments to taxpayers, and (4) assigning staff to present the assessor's case in formal appeals.

INTRODUCTION TO ASSESSMENT PERFORMANCE MEASUREMENT

The primary responsibility of the assessing office is to estimate the market value of the properties within the jurisdiction. The integrity of the property tax depends in large part on the accuracy and efficiency of these estimates, since they are the basis for assessed values and therefore, in part, for property tax bills. The accuracy of assessments and the efficiency of operations are of considerable importance not only to assessing officers but also to property owners and elected officials. How well these functions are carried out affect local government costs, which are borne by each taxpayer, and the effectiveness of local government in general. Assessment ratio studies provide a means by which the accuracy of assessments and the performance of assessing officers may be evaluated.

Overview of the Basic Components of Assessment Ratio Study

As assessment ratio is the ratio of an assessment to a proxy (a substitute) for market value-it expresses a relationship between a property's assessed value and its market value. Market values are elusive figures, which cannot be directly observed: they are usually represented by sales prices, although independent "expert" appraisals are also sometimes used. Sales prices are nothing more than evidence of market value; therefore, some sales are more appropriate in a ratio study than others; similarly, some assessments are of a higher quality than others.

The assessed value abbreviated "A/S." For example, a property which was sold for \$60,000 and assessed at \$30,000 would have an assessment ratio of 0.50, or 50 percent (\$30,000 divided by \$60,000). This assessment ratio is often also called a "sales ratio" or "assessment/sale price ratio." For ease of understanding, the term assessment ratio and its abbreviated (A/S) will be used herein.

Some argument has been made for using the sale price divided by the assessed value (S/A ratio) instead of the reverse, because this configuration, which tends to be more "normally" distributed, may have greater analytical applications. Another argument made for the S/A configuration is that a "sale price divided by assessment" ratio proceeds a direct equalization factor, or multiplier, and therefore may be more easily by people unfamiliar with the assessment process. Although this form of assessment ratio may have merit, and its application deserves further research, its significant superiority over the "assessment divided by sales price" ratio has not been conclusively proven. The A/S is undoubtedly the most widely applied configuration, and its use, therefore, facilitates inter-jurisdictional comparisons. Because the A/S ratio is most commonly used and is recommended in the IAAO "Standard on Assessment-Ratio Studies," this review will focus on the A/S ratio.

In every assessment jurisdiction there is a legally mandated, or stated, assessment ratio at which properties should be assessed. How closely the assessments in a jurisdiction come to this ratio is called assessment accuracy, or the degree to which each property is assessed at the appropriate percentage of market value. There are two primary aspects of assessment accuracy: assessment level and assessment uniformity. Assessment level refers to the degree to which the overall ratio of assessed values to market values approximates the legally mandated ratio for the property class in question. In many jurisdictions (North Carolina), this legal ratio is 100 percent of market value, or

“full” value. In others it is a smaller percent—60 percent, 50 percent, or 30 percent, for example. In still other jurisdictions, the statutory assessment ratio varies according to broad classes of properties- commercial properties are assessed at 40 percent of market value, residential properties at 20 percent.

The median level often indicates assessment level. If the legal ratio in the jurisdiction is 50 percent, and the median assessment level in the jurisdiction is 32 percent; for example, the statutory requirements have not been met.

Assessment uniformity refers to the degree to which different properties are assessed at equal percentages of market value, or the degree to which property tax burdens are levied in a proportion to value. Assessment uniformity is often indicated by the coefficient of dispersion (COD). If the COD is 30 percent, for example, the degree of assessment uniformity is low; if it is 5 percent, the uniformity is high.

Assessment level and uniformity, the two essential aspects of assessment accuracy, are evaluated by an assessment-ratio study. An assessment ratio study is simply a tool for real estate market analysis and assessment performance measurement. It can tell a great deal about how properties are assessed and the way they should be assessed. It is a detailed statistical analysis of the degree of assessment accuracy, indicated by comparing assessment ratios as of a specific date. It must be regarded as the final analysis in the evaluation of assessment accuracy.

An A/S ratio study has five major stages: first, delineation of objectives; second, information about sales; third, information about property characteristics and assessed values; fourth, statistical treatment of the information; and fifth, conclusions drawn from the information. The basic steps generally undertaken in an assessment ratio study are:

1. define the problem and clearly state the purpose of the study
2. evaluate data needs
3. collect sales data
4. edit sales data
5. adjust sales data
6. match each sales with its corresponding assessed value
7. compute the assessment ratio
8. stratify ratios as appropriate
9. compute descriptive statistics
10. compute inferential statistics
11. test hypotheses and analyze results
12. take the necessary informative and corrective action

The study should be kept as simple as possible yet be in complete accord with its stated purpose. Since the design of the study is almost totally influenced by its purpose, the first step is the most important one.

An assessment ratio study is a tool and craftsmen choose their tool with care.

The data requirements of the study, including assessment information, market value estimates, and property characteristics, must be evaluated prior to initiating that study. The purposes of the study will indicate certain data requirements (some of which will be impossible to meet) that will necessitate modification of the study design. Precise results require precise data. For this reason the findings of the study can only be as accurate as the data used. Statistics based on samples of sold properties are used in an A/S study to make inferences about the accuracy of all assessments in a population. A sample chosen for analysis may be smaller than the entire group of usable sales. Therefore, both the population and the sample to be studied must be defined. This is the first step involved in increasing the detail of the study.

It is also important to determine the frequency with which A/S ratio studies should be made. It is widely agreed that assessment-ratio studies should be conducted at regular intervals. They should also be conducted before and after a revaluation. A specific date of analysis should be chosen because a study is undertaken to analyze the indicated relationship as of a particular date. This date is generally the appraisal date of the year to be studied.

The important information contained in assessment ratio studies is wasted if the studies are not used once they have been performed. They should be used to improve assessment performance and assure property tax equity.

IAAO PERFORMANCE STANDARDS

IAAO is the International Association of Assessing Officers. Standards for assessment ratio measures should be adopted by all jurisdictions. The IAAO "Standard on Assessment Ratio Studies" applies particularly in jurisdictions in which current market value is the basis of assessment. (The IAAO also endorse current market value as the legal basis of assessment. See "Policy Statements: International Association of Assessing Officers," page 8b, adopted January 25, 1983.) These standards presuppose a budget sufficient to hire competent personnel and apply sound assessment procedures as well as the availability of certain basic data such as an adequate sample size.

Among the recommendations made in the IAAO "Standard on Assessment Ratio Studies" are:

Assessment Level

The overall assessment level of a jurisdiction or a stratum should be within 10 percent of the legal ratio.

Assessment Uniformity

- a. among strata, the level of assessment in each stratum be within 5 percent of the overall assessment ratio jurisdiction
- b. within single-family residential strata, CODs should be less than 15 percent, and for areas of newer and fairly similar residences, less than 10 percent;
- c. within strata of income-producing property, CODs should be less than 15 percent; and
- d. within other strata, such as vacant lots, farms, and acreage, CODs should be less than 20 percent.

The standard for assessment level is presumed to have been met if the confidence interval of the overall assessment level at the 95 percent confidence level includes the legal ratio, or if a test of the null hypothesis that the overall level of assessment is within 10 percent of the legal level cannot be rejected at the 95 percent confidence level.

Assessment ratio studies used both for internal control and inter-jurisdictional assessment equalization should be conducted at least annually. All in all, the average assessment jurisdiction should be able to meet the indicated standards. In all cases, the goals are progressive rather than static in nature. One can always improve – if not overnight, at least over time.

**UNIFORM
STANDARDS OF
PROFESSIONAL
APPRAISAL
PRACTICE**

**2010-2011
EDITION**

APPRAISAL STANDARDS BOARD



THE APPRAISAL FOUNDATION

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Vision and Mission Statement of The Appraisal Foundation

VISION STATEMENT

The Appraisal Foundation will be the organization that is the ultimate source of appraisal standards, appraiser qualifications and standards of ethical conduct in all valuation disciplines to assure public trust in the valuation profession.

MISSION STATEMENT

The Appraisal Foundation, a not-for-profit organization dedicated to the advancement of professional valuation, was established by the appraisal profession in the United States in 1987. Since its inception, the Foundation has worked to foster professionalism in appraising by:

- establishing, improving, and promoting the *Uniform Standards of Professional Appraisal Practice* (USPAP);
- establishing educational experience and examination qualification criteria for the licensing, certification and recertification of real property appraisers;
- establishing educational and experience qualification criteria for other valuation disciplines;
- disseminating information on USPAP and the Appraiser Qualification Criteria to the appraisal profession, state and federal government agencies, users of appraisal services, related industries and industry groups, and the general public and;
- sponsoring appropriate activities relating to standards, qualifications and issues of importance to appraisers and users of appraisal services.

-Extracted from *The Strategic Goals of The Appraisal Foundation*
Adopted 110108

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STANDARD 6

1427 STANDARD 6: MASS APPRAISAL, DEVELOPMENT AND REPORTING

1428 In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those
1429 recognized methods and techniques necessary to produce and communicate credible mass appraisals.

1430 Comment: STANDARD 6 applies to all mass appraisals of real or personal property
1431 regardless of the purpose or use of such appraisals.⁵⁵ STANDARD 6 is directed toward the
1432 substantive aspects of developing and communicating credible analyses, opinions, and
1433 conclusions in the mass appraisal of properties. Mass appraisals can be prepared with or
1434 without computer assistance. The reporting and jurisdictional exceptions applicable to public
1435 mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for
1436 other purposes.

1437 A mass appraisal includes:

- 1438 1) identifying properties to be appraised;
- 1439 2) defining market area of consistent behavior that applies to properties;
- 1440 3) identifying characteristics (supply and demand) that affect the creation of value in
1441 that market area;
- 1442 4) developing a model structure that reflects the relationship among the characteristics
1443 affecting value in the market area;
- 1444 5) calibrating the model structure to determine the contribution of the individual
1445 characteristics affecting value;
- 1446 6) applying the conclusions reflected in the model to the characteristics of the
1447 property(ies) being appraised; and
- 1448 7) reviewing the mass appraisal results.

1449 The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD
1450 6 because ad valorem tax administration is subject to various state, county, and municipal
1451 laws.

1452 Standards Rule 6-1

1453 In developing a mass appraisal, an appraiser must:

- 1454 (a) be aware of, understand, and correctly employ those recognized methods and techniques
1455 necessary to produce a credible mass appraisal;

1456 Comment: Mass appraisal provides for a systematic approach and uniform application of
1457 appraisal methods and techniques to obtain estimates of value that allow for statistical review
1458 and analysis of results.

1459 This requirement recognizes that the principle of change continues to affect the manner in
1460 which appraisers perform mass appraisals. Changes and developments in the real property and
1461 personal property fields have a substantial impact on the appraisal profession.

1462 To keep abreast of these changes and developments, the appraisal profession is constantly
1463 reviewing and revising appraisal methods and techniques and devising new methods and
1464 techniques to meet new circumstances. For this reason it is not sufficient for appraisers to
1465 simply maintain the skills and the knowledge they possess when they become appraisers.

⁵⁵ See Advisory Opinion 31, *Ad Valorem Property Tax Appraisal and Mass Appraisal Assignments*.

STANDARD 6

- 1466 Each appraiser must continuously improve his or her skills to remain proficient in mass
1467 appraisal.
- 1468 (b) not commit a substantial error of omission or commission that significantly affects a mass
1469 appraisal; and
- 1470 Comment: An appraiser must use sufficient care to avoid errors that would significantly affect
1471 his or her opinions and conclusions. Diligence is required to identify and analyze the factors,
1472 conditions, data, and other information that would have a significant effect on the credibility
1473 of the assignment results.
- 1474 (c) not render a mass appraisal in a careless or negligent manner.
- 1475 Comment: Perfection is impossible to attain, and competence does not require perfection.
1476 However, an appraiser must not render appraisal services in a careless or negligent manner.
1477 This Standards Rule requires an appraiser to use due diligence and due care.
- 1478 Standards Rule 6-2
- 1479 In developing a mass appraisal, an appraiser must:
- 1480 (a) identify the client and other intended users;⁵⁶
- 1481 (b) identify the intended use of the appraisal;⁵⁷
- 1482 Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to
1483 cause the assignment results to be biased.
- 1484 (c) identify the type and definition of value, and, if the value opinion to be developed is market
1485 value, ascertain whether the value is to be the most probable price:
- 1486 (i) in terms of cash; or
- 1487 (ii) in terms of financial arrangements equivalent to cash; or
- 1488 (iii) in such other terms as may be precisely defined; and
- 1489 (iv) if the opinion of value is based on non-market financing or financing with unusual
1490 conditions or incentives, the terms of such financing must be clearly identified and the
1491 appraiser's opinion of their contributions to or negative influence on value must be
1492 developed by analysis of relevant market data;
- 1493 Comment: For certain types of appraisal assignments in which a legal definition of market
1494 value has been established and takes precedence, the JURISDICTIONAL EXCEPTION
1495 RULE may apply.
- 1496 (d) identify the effective date of the appraisal;⁵⁸

⁵⁶ See Statement on Appraisal Standards No. 9, *Identification of Intended Use and Intended Users*.

⁵⁷ See Statement on Appraisal Standards No. 9, *Identification of Intended Use and Intended Users*.

⁵⁸ See Statement on Appraisal Standards No. 3, *Retrospective Value Opinions*, and Statement on Appraisal Standards No. 4, *Prospective Value Opinions*.

STANDARD 6

- 1497 (e) identify the characteristics of the properties that are relevant to the type and definition of value
1498 and intended use⁵⁹, including:
- 1499 (i) the group with which a property is identified according to similar market influence;
- 1500 (ii) the appropriate market area and time frame relative to the property being valued; and
- 1501 (iii) their location and physical, legal, and economic characteristics;
- 1502 Comment: The properties must be identified in general terms, and each individual property in
1503 the universe must be identified, with the information on its identity stored or referenced in its
1504 property record.
- 1505 When appraising proposed improvements, an appraiser must examine and have available for
1506 future examination, plans, specifications, or other documentation sufficient to identify the
1507 extent and character of the proposed improvements.⁶⁰
- 1508 Ordinarily, proposed improvements are not appraised for ad valorem tax purposes. Appraisers,
1509 however, are sometimes asked to provide opinions of value of proposed improvements so that
1510 developers can estimate future property tax burdens. Sometimes units in condominiums and
1511 planned unit developments are sold with an interest in unbuilt community property, the pro
1512 rata value of which, if any, must be considered in the analysis of sales data.
- 1513 (f) identify the characteristics of the market that are relevant to the purpose and intended use of the
1514 mass appraisal including:
- 1515 (i) location of the market area;
- 1516 (ii) physical, legal, and economic attributes;
- 1517 (iii) time frame of market activity; and
- 1518 (iv) property interests reflected in the market;
- 1519 (g) in appraising real property or personal property:
- 1520 (i) identify the appropriate market area and time frame relative to the property being
1521 valued;
- 1522 (ii) when the subject is real property, identify and consider any personal property, trade
1523 fixtures, or intangibles that are not real property but are included in the appraisal;
- 1524 (iii) when the subject is personal property, identify and consider any real property or
1525 intangibles that are not personal property but are included in the appraisal;
- 1526 (iv) identify known easements, restrictions, encumbrances, leases, reservations, covenants,
1527 contracts, declarations, special assessments, ordinances, or other items of similar nature;
1528 and

⁵⁹ See Advisory Opinion 23, *Identifying the Relevant Characteristics of the Subject Property of a Real Property Appraisal Assignment*, if applicable.

⁶⁰ See Advisory Opinion 17, *Appraisals of Real Property with Proposed Improvements*, if applicable.

STANDARD 6

- 1529 (v) identify and analyze whether an appraised fractional interest, physical segment or
1530 partial holding contributes pro rata to the value of the whole;

1531 Comment: The above requirements do not obligate the appraiser to value the whole
1532 when the subject of the appraisal is a fractional interest, physical segment, or a
1533 partial holding. However, if the value of the whole is not identified, the appraisal
1534 must clearly reflect that the value of the property being appraised cannot be used to
1535 develop the value opinion of the whole by mathematical extension.

- 1536 (h) analyze the relevant economic conditions at the time of the valuation, including market
1537 acceptability of the property and supply, demand, scarcity, or rarity;

- 1538 (i) identify any extraordinary assumptions and any hypothetical conditions necessary in the
1539 assignment; and

1540 Comment: An extraordinary assumption may be used in an assignment only if:

- 1541 • it is required to properly develop credible opinions and conclusions;
- 1542 • the appraiser has a reasonable basis for the extraordinary assumption;
- 1543 • use of the extraordinary assumption results in a credible analysis; and
- 1544 • the appraiser complies with the disclosure requirements set forth in USPAP for
1545 extraordinary assumptions.

1546 A hypothetical condition may be used in an assignment only if:

- 1547 • use of the hypothetical condition is clearly required for legal purposes, for purposes
1548 of reasonable analysis, or for purposes of comparison;
- 1549 • use of the hypothetical condition results in a credible analysis; and
- 1550 • the appraiser complies with the disclosure requirements set forth in USPAP for
1551 hypothetical conditions.

- 1552 (j) determine the scope of work necessary to produce credible assignment results in accordance with
1553 the SCOPE OF WORK RULE.⁶¹

1554 **Standards Rule 6-3**

1555 When necessary for credible assignment results, an appraiser must:

- 1556 (a) in appraising real property, identify and analyze the effect on use and value of the following
1557 factors: existing land use regulations, reasonably probable modifications of such regulations,
1558 economic supply and demand, the physical adaptability of the real estate, neighborhood trends,
1559 and highest and best use of the real estate; and

1560 Comment: This requirement sets forth a list of factors that affect use and value. In considering
1561 neighborhood trends, an appraiser must avoid stereotyped or biased assumptions relating to
1562 race, age, color, gender, or national origin or an assumption that race, ethnic, or religious
1563 homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must
1564 avoid making an unsupported assumption or premise about neighborhood decline, effective
1565 age, and remaining life. In considering highest and best use, an appraiser must develop the
1566 concept to the extent required for a proper solution to the appraisal problem.

⁶¹ See Advisory Opinion 28, *Scope of Work Decision, Performance, and Disclosure*, and Advisory Opinion 29, *An Acceptable Scope of Work*.

STANDARD 6

- 1567 (b) in appraising personal property: identify and analyze the effects on use and value of industry
1568 trends, value-in-use, and trade level of personal property. Where applicable, analyze the current
1569 use and alternative uses to encompass what is profitable, legal, and physically possible, as
1570 relevant to the type and definition of value and intended use of the appraisal. Personal property
1571 has several measurable marketplaces; therefore, the appraiser must define and analyze the
1572 appropriate market consistent with the type and definition of value.

1573 Comment: The appraiser must recognize that there are distinct levels of trade and each may
1574 generate its own data. For example, a property may have a different value at a wholesale level
1575 of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser
1576 must analyze the subject property within the correct market context.

1577 Standards Rule 6-4

1578 In developing a mass appraisal, an appraiser must:

- 1579 (a) identify the appropriate procedures and market information required to perform the appraisal.
1580 including all physical, functional, and external market factors as they may affect the appraisal;

1581 Comment: Such efforts customarily include the development of standardized data collection
1582 forms, procedures, and training materials that are used uniformly on the universe of properties
1583 under consideration.

- 1584 (b) employ recognized techniques for specifying property valuation models; and

1585 Comment: The formal development of a model in a statement or equation is called model
1586 specification. Mass appraisers must develop mathematical models that, with reasonable
1587 accuracy, represent the relationship between property value and supply and demand factors, as
1588 represented by quantitative and qualitative property characteristics. The models may be
1589 specified using the cost, sales comparison, or income approaches to value. The specification
1590 format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for
1591 representing the observable property characteristics. Appropriate approaches must be used in
1592 appraising a class of properties. The concept of recognized techniques applies to both real and
1593 personal property valuation models.

- 1594 (c) employ recognized techniques for calibrating mass appraisal models.

1595 Comment: Calibration refers to the process of analyzing sets of property and market data to
1596 determine the specific parameters of a model. The table entries in a cost manual are examples
1597 of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models
1598 must be calibrated using recognized techniques, including, but not limited to, multiple linear
1599 regression, nonlinear regression, and adaptive estimation.

1600 Standards Rule 6-5

1601 In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:

- 1602 (a) collect, verify, and analyze such data as are necessary and appropriate to develop:

- 1603 (i) the cost new of the improvements;
1604 (ii) accrued depreciation;
1605 (iii) value of the land by sales of comparable properties;

STANDARD 6

- 1606 (iv) value of the property by sales of comparable properties;
- 1607 (v) value by capitalization of income or potential earnings—i.e., rentals, expenses, interest
- 1608 rates, capitalization rates, and vacancy data;

1609 Comment: This Standards Rule requires appraisers engaged in mass appraisal to take

1610 reasonable steps to ensure that the quantity and quality of the factual data that are collected

1611 are sufficient to produce credible appraisals. For example, in real property, where applicable

1612 and feasible, systems for routinely collecting and maintaining ownership, geographic, sales,

1613 income and expense, cost, and property characteristics data must be established. Geographic

1614 data must be contained in as complete a set of cadastral maps as possible, compiled according

1615 to current standards of detail and accuracy. Sales data must be collected, confirmed, screened,

1616 adjusted, and filed according to current standards of practice. The sales file must contain, for

1617 each sale, property characteristics data that are contemporaneous with the date of sale.

1618 Property characteristics data must be appropriate and relevant to the mass appraisal models

1619 being used. The property characteristics data file must contain data contemporaneous with

1620 the date of appraisal including historical data on sales, where appropriate and available. The

1621 data collection program must incorporate a quality control program, including checks and

1622 audits of the data to ensure current and consistent records.

- 1623 (b) base estimates of capitalization rates and projections of future rental rates and/or potential
- 1624 earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate
- 1625 evidence;⁶²

1626 Comment: This requirement calls for an appraiser, in developing income and expense

1627 statements and cash flow projections, to weigh historical information and trends, current

1628 market factors affecting such trends, and reasonably anticipated events, such as competition

1629 from developments either planned or under construction.

- 1630 (c) identify and, as applicable, analyze terms and conditions of any available leases; and

- 1631 (d) identify the need for and extent of any physical inspection.⁶³

1632 Standards Rule 6-6

1633 When necessary for credible assignment results in applying a calibrated mass appraisal model an

1634 appraiser must:

- 1635 (a) value improved parcels by recognized methods or techniques based on the cost approach, the
- 1636 sales comparison approach, and income approach;

- 1637 (b) value sites by recognized methods or techniques; such techniques include but are not limited to
- 1638 the sales comparison approach, allocation method, abstraction method, capitalization of ground
- 1639 rent, and land residual technique;

- 1640 (c) when developing the value of a leased fee estate or a leasehold estate, analyze the effect on value,
- 1641 if any, of the terms and conditions of the lease;

1642 Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise

1643 the property as if in fee simple, as though unencumbered by existing leases. In such cases,

⁶² See Statement on Appraisal Standards No. 2, *Discounted Cash Flow Analysis*.

⁶³ See Advisory Opinion 2, *Inspection of Subject Property*.

STANDARD 6

- 1644 market rent would be used in the appraisal, ignoring the effect of the individual, actual
1645 contract rents.
- 1646 (d) analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or
1647 component parts of a property; the value of the whole must not be developed by adding together
1648 the individual values of the various parcels, divided interests, or component parts; and
- 1649 Comment: When the value of the whole has been established and the appraiser seeks to value
1650 a part, the value of any such part must be tested by reference to appropriate market data and
1651 supported by an appropriate analysis of such data.
- 1652 (e) when analyzing anticipated public or private improvements, located on or off the site, analyze
1653 the effect on value, if any, of such anticipated improvements to the extent they are reflected in
1654 market actions.
- 1655 Standards Rule 6-7
- 1656 In reconciling a mass appraisal an appraiser must:
- 1657 (a) reconcile the quality and quantity of data available and analyzed within the approaches used and
1658 the applicability and relevance of the approaches, methods and techniques used; and
- 1659 (b) employ recognized mass appraisal testing procedures and techniques to ensure that standards of
1660 accuracy are maintained.
- 1661 Comment: It is implicit in mass appraisal that, even when properly specified and calibrated
1662 mass appraisal models are used, some individual value conclusions will not meet standards of
1663 reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal
1664 have a professional responsibility to ensure that, on an overall basis, models produce value
1665 conclusions that meet attainable standards of accuracy. This responsibility requires appraisers
1666 to evaluate the performance of models, using techniques that may include but are not limited
1667 to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio
1668 studies, evaluation of hold-out samples, or analysis of residuals.
- 1669 Standards Rule 6-8
- 1670 A written report of a mass appraisal must clearly communicate the elements, results, opinions, and value
1671 conclusions of the appraisal.
- 1672 Each written report of a mass appraisal must:
- 1673 (a) clearly and accurately set forth the appraisal in a manner that will not be misleading;
- 1674 (b) contain sufficient information to enable the intended users of the appraisal to understand the
1675 report properly;
- 1676 Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of
1677 (1) property records, (2) sales ratios and other statistical studies, (3) appraisal manuals and
1678 documentation, (4) market studies, (5) model building documentation, (6) regulations, (7)
1679 statutes, and (8) other acceptable forms.
- 1680 (c) clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical
1681 conditions, and limiting conditions used in the assignment;

STANDARD 6

- 1682 Comment: The report must clearly and conspicuously:
- 1683 • state all extraordinary assumptions and hypothetical conditions; and
- 1684 • state that their use might have affected the assignment results.
- 1685 (d) state the identity of the client and any intended users, by name or type;⁶⁴
- 1686 (e) state the intended use of the appraisal;⁶⁵
- 1687 (f) disclose any assumptions or limiting conditions that result in deviation from recognized methods
- 1688 and techniques or that affect analyses, opinions, and conclusions;
- 1689 (g) set forth the effective date of the appraisal and the date of the report;
- 1690 Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law.
- 1691 If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is
- 1692 presumed to be contemporaneous with the data and appraisal conclusions.
- 1693 The effective date of the appraisal establishes the context for the value opinion, while the date
- 1694 of the report indicates whether the perspective of the appraiser on the market and property as
- 1695 of the effective date of the appraisal was prospective, current, or retrospective.⁶⁶
- 1696 (h) state the type and definition of value and cite the source of the definition;
- 1697 Comment: Stating the type and definition of value also requires any comments needed to
- 1698 clearly indicate to intended users how the definition is being applied.⁶⁷
- 1699 When reporting an opinion of market value, state whether the opinion of value is:
- 1700 • In terms of cash or of financing terms equivalent to cash; or
- 1701 • Based on non-market financing with unusual conditions or incentives.
- 1702 When an opinion of market value is not in terms of cash or based on financing terms
- 1703 equivalent to cash, summarize the terms of such financing and explain their contributions to
- 1704 or negative influence on value.
- 1705 (i) identify the properties appraised including the property rights;
- 1706 Comment: The report documents the sources for location, describing and listing the property.
- 1707 When applicable, include references to legal descriptions, addresses, parcel identifiers,
- 1708 photos, and building sketches. In mass appraisal this information is often included in property
- 1709 records. When the property rights to be appraised are specified in a statute or court ruling, the
- 1710 law must be referenced.

⁶⁴ See Statement on Appraisal Standards No. 9, *Identification of the Intended Use and Intended Users*.

⁶⁵ See Statement on Appraisal Standards No. 9, *Identification of the Intended Use and Intended Users*.

⁶⁶ See Statement on Appraisal Standards No. 3, *Retrospective Value Opinions*, and Statement on Appraisal Standards No. 4, *Prospective Value Opinions*.

⁶⁷ See Statement on Appraisal Standards No. 6, *Reasonable Exposure Time in Real Property and Personal Property Market Value Opinions*. See also Advisory Opinion 7, *Marketing Time Opinions*.

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- 1711 (j) describe the scope of work used to develop the appraisal;⁶⁸ exclusion of the sales comparison
1712 approach, cost approach, or income approach must be explained;

1713 Comment: Because intended users' reliance on an appraisal may be affected by the scope of
1714 work, the report must enable them to be properly informed and not misled. Sufficient
1715 information includes disclosure of research and analyses performed and might also include
1716 disclosure of research and analyses not performed.

1717 When any portion of the work involves significant mass appraisal assistance, the appraiser
1718 must describe the extent of that assistance. The signing appraiser must also state the name(s)
1719 of those providing the significant mass appraisal assistance in the certification, in accordance
1720 with Standards Rule 6-9.⁶⁹

- 1721 (k) describe and justify the model specification(s) considered, data requirements, and the model(s)
1722 chosen;

1723 Comment: The appraiser must provide sufficient information to enable the client and
1724 intended users to have confidence that the process and procedures used conform to accepted
1725 methods and result in credible value conclusions. In the case of mass appraisal for ad valorem
1726 taxation, stability and accuracy are important to the credibility of value opinions. The report
1727 must include a discussion of the rationale for each model, the calibration techniques to be
1728 used, and the performance measures to be used.

- 1729 (l) describe the procedure for collecting, validating, and reporting data;

1730 Comment: The report must describe the sources of data and the data collection and validation
1731 processes. Reference to detailed data collection manuals must be made, as appropriate,
1732 including where they may be found for inspection.

- 1733 (m) describe calibration methods considered and chosen, including the mathematical form of the
1734 final model(s); describe how value conclusions were reviewed; and, if necessary, describe the
1735 availability of individual value conclusions;

- 1736 (n) when an opinion of highest and best use, or the appropriate market or market level was
1737 developed, discuss how that opinion was determined;

1738 Comment: The mass appraisal report must reference case law, statute, or public policy that
1739 describes highest and best use requirements. When actual use is the requirement, the report
1740 must discuss how use-value opinions were developed. The appraiser's reasoning in support of
1741 the highest and best use opinion must be provided in the depth and detail required by its
1742 significance to the appraisal.

- 1743 (o) identify the appraisal performance tests used and set forth the performance measures attained;

- 1744 (p) describe the reconciliation performed, in accordance with Standards Rule 6-7; and

- 1745 (q) include a signed certification in accordance with Standards Rule 6-9.

⁶⁸ See Advisory Opinion 28, *Scope of Work Decision, Performance, and Disclosure* and Advisory Opinion 29, *An Acceptable Scope of Work*.

⁶⁹ See Advisory Opinion 31, *Assignments Involving More than One Appraiser*.

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1746 Standards Rule 6-9

1747 Each written mass appraisal report must contain a signed certification that is similar in content to the
1748 following form:

1749 I certify that, to the best of my knowledge and belief:

- 1750 — the statements of fact contained in this report are true and correct.
- 1751 — the reported analyses, opinions, and conclusions are limited only by the reported
- 1752 assumptions and limiting conditions, and are my personal, impartial, and unbiased
- 1753 professional analyses, opinions, and conclusions.
- 1754 — I have no (or the specified) present or prospective interest in the property that is the
- 1755 subject of this report, and I have no (or the specified) personal interest with respect to
- 1756 the parties involved.
- 1757 — I have no bias with respect to any property that is the subject of this report or to the
- 1758 parties involved with this assignment.
- 1759 — my engagement in this assignment was not contingent upon developing or reporting
- 1760 predetermined results.
- 1761 — my compensation for completing this assignment is not contingent upon the reporting
- 1762 of a predetermined value or direction in value that favors the cause of the client, the
- 1763 amount of the value opinion, the attainment of a stipulated result, or the occurrence of
- 1764 a subsequent event directly related to the intended use of this appraisal.
- 1765 — my analyses, opinions, and conclusions were developed, and this report has been
- 1766 prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice*.
- 1767 — I have (or have not) made a personal inspection of the properties that are the subject
- 1768 of this report. (If more than one person signs the report, this certification must clearly
- 1769 specify which individuals did and which individuals did not make a personal
- 1770 inspection of the appraised property.)⁷⁰
- 1771 — no one provided significant mass appraisal assistance to the person signing this
- 1772 certification. (If there are exceptions, the name of each individual providing
- 1773 significant mass appraisal assistance must be stated.)

1774 Comment: The above certification is not intended to disturb an elected or appointed assessor's
1775 work plans or oaths of office. A signed certification is an integral part of the appraisal report.
1776 An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal,
1777 must also sign this certification.

1778 In an assignment that includes only assignment results developed by the real property
1779 appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all
1780 elements of the certification, for the assignment results, and for the contents of the appraisal
1781 report. In an assignment that includes personal property assignment results not developed by
1782 the real property appraiser(s), any real property appraiser(s) who signs a certification accepts
1783 full responsibility for the real property elements of the certification, for the real property
1784 assignment results, and for the real property contents of the appraisal report.

1785 In an assignment that includes only assignment results developed by the personal property
1786 appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all
1787 elements of the certification, for the assignment results, and for the contents of the appraisal
1788 report. In an assignment that includes real property assignment results not developed by the
1789 personal property appraiser(s), any personal property appraiser(s) who signs a certification
1790 accepts full responsibility for the personal property elements of the certification, for the

⁷⁰ See Advisory Opinion 2, *Inspection of Subject Property*.

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1791 personal property assignment results, and for the personal property contents of the appraisal
1792 report.

1793 When a signing appraiser(s) has relied on work done by appraisers and others who do not sign
1794 the certification, the signing appraiser is responsible for the decision to rely on their work.
1795 The signing appraiser(s) is required to have a reasonable basis for believing that those
1796 individuals performing the work are competent. The signing appraiser(s) also must have no
1797 reason to doubt that the work of those individuals is credible.

1798 The names of individuals providing significant mass appraisal assistance who do not sign a
1799 certification must be stated in the certification. It is not required that the description of their
1800 assistance be contained in the certification, but disclosure of their assistance is required in
1801 accordance with Standards Rule 6-8(j).⁷¹

⁷¹ See Advisory Opinion 31, *Assignments Involving More than One Appraiser*.

